



博
愛
理
狂

*A Dame Full
of Vim and Vigor*

A Biography of
Alice Middleton Boring:
biologist in china

by Marilyn Bailey Ogilvie
and Clifford J. Choquette

ROUTLEDGE

A Dame Full of Vim and Vigor

Women in Science

Series Editor

Marilyn Bailey Ogilvie, *History of Science Collections, University of Oklahoma, USA*

Editorial Board

Pamela Gossin, *School of Arts and Humanities, University of Texas at Dallas, USA*

Joy Harvey, *Independent Scholar*

Catherine Hobbs, *Rhetoric/Composition/Literacy, University of Oklahoma, USA*

Sylvia McGrath, *Department of the History of Science, University of Oklahoma, USA*

A Dame Full of Vim and Vigor: A Biography of Alice Middleton Boring;
Biologist in China
Marilyn Bailey Ogilvie and Clifford J. Choquette

This book is part of a series. The publisher will accept continuation orders which may be cancelled at any time and which provide for automatic billing and shipping of each title in the series upon publication. Please write for details.

A Dame Full of Vim and Vigor

A Biography of Alice Middleton Boring;
Biologist in China

Marilyn Bailey Ogilvie
and
Clifford J. Choquette

First published 1999 by Harwood Academic Publishers

Published 2013 by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN
711 Third Avenue, New York, NY, 10017, USA

Routledge is an imprint of the Taylor & Francis Group, an informa business

Copyright © 1999 OPA (Overseas Publishers Association) N.V. Published by license under the Harwood Academic Publishers imprint, part of The Gordon and Breach Publishing Group.

All rights reserved.

No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, without permission in writing from the publisher.

British Library Cataloguing in Publication Data

Ogilvie, Marilyn Bailey

A dame full of vim and vigor : a biography of Alice
Middleton Boring : biologist in China. – (Women in science)
1. Boring, Alice Middleton 2. Women biologists – United
States – Biography 3. Biologists – United States – Biography
4. Women biologists – China – Biography
I. Title II. Choquette, Clifford J.
570.9'2

ISBN 13: 978-9-057-02575-4 (hbk)

CONTENTS

List of Illustrations		vii
Preface to the Series		ix
Acknowledgments		xi
Note on Chinese Names		xvii
Introduction	The Green Grasshopper	1
Chapter 1	Origins and Early Years	9
Chapter 2	The China Experiment	29
Chapter 3	The Career Choice	61
Chapter 4	From Laboratory Biology to Field Natural History	87
Chapter 5	Teaching and Advising	121
Chapter 6	Pearl Harbor and Internment	147
Chapter 7	The Return	165
Chapter 8	The Finale	179
Chapter 9	A Retrospective	191
Bibliography	Alice M. Boring	205
Index		209

This page intentionally left blank

LIST OF ILLUSTRATIONS

(between pages 120 and 121)

- Figure 1 The Boring Family, 1907. Courtesy of Katherine Hsu, MD
- Figure 2 Nettie Maria Stevens, 1904. Courtesy of the Carnegie Institute of Washington
- Figure 3 Friends' Central School. Courtesy of the Friends' Central School
- Figure 4 Bryn Mawr College, 1899. Courtesy of Bryn Mawr College archives
- Figure 5 Dr Stuart, late 1930s. Courtesy of Dora Fugh Lee
- Figure 6 Incarceration at Peiping (Beijing), 1941. Courtesy of Dora Fugh Lee
- Figure 7 Dr Stuart, 1946. Courtesy of Dora Fugh Lee
- Figure 8 Chou En Lai and Dr Stuart, Nankir, 1946. Courtesy of Dora Fugh Lee
- Figure 9 *Vibrissaphora boringii*, Sichuan Province, China. Courtesy of Kraig Adler
- Figure 10 Pre-med students, Yenching University, taken in front of Alice Boring's residence, Peking, 1932/3. Courtesy of Katherine Hsu, MD
- Figure 11 Alice Boring and godson Li Shu Xin. Courtesy of Katherine Hsu, MD
- Figure 12 Commencement at Yenching University, June 1939. Courtesy of Edward Rondthaler III
- Figure 13 Peking University Medical College. Photograph by Marilyn Bailey Ogilvie
- Figure 14 Lydia, Katharine and Alice Boring, c. October 1950. Courtesy of Edward Rondthaler III

Figure 15 Professor Lin Chang Shan, one of Boring's students, at the gate to Yenching University. Photograph by Marilyn Bailey Ogilvie

Figure 16 Three former students in President Stuart's house at Yenching University. l to r, Jiang Lijin, Sun You Yun, Ye Dao Chun. Photograph by Marilyn Bailey Ogilvie

PREFACE TO THE SERIES

For many years it was assumed that women had little or no part in scientific enterprise. However, during the last two decades, the interest in women and/or gender and science has increased. Research indicates that even in remote antiquity there have been women who were scientists. It is tantalizing to attempt to determine the special circumstances that existed in the lives of these women that made them able to overcome an often hostile environment. In order to reach a better understanding of these unique women, it is vital to study their lives and their works. Recognizing the importance of providing a publication outlet for scholarly works that will provide answers to some of these questions, Harwood Academic Publishers has established a series on Women in Science. This series provides a forum for the publication of full-length scholarly biographies of women scientists, collective biographies with a specific emphasis, collected works of women scientists, and critical analyses.

The books in this series will appeal to those interested in the history of science, technology, and medicine; women in history; and gender issues in science. Although these books are scholarly, they are written so that they will appeal to a more general audience.

Marilyn Bailey Ogilvie
Series Editor

This page intentionally left blank

ACKNOWLEDGMENTS

We are heavily indebted to many individuals and institutions of learning. Without their time, expertise, and encouragement this project would have been impossible. We received the usual superb service from college and university archivists. Lucy Fisher West, Teresa Taylor and incumbent Caroline Rittenhouse supplied not only Bryn Mawr information on Alice Boring, but provided additional valuable advice and leads. Martha Lund Smalley at the Yale Divinity School archives led us to a treasure chest of Yenching documents and photographs, a collection given to them by the United Board for Christian Higher Education in Asia. Wellesley and Radcliffe colleges made available for study the Grace M. Boynton papers which added much to our knowledge of Boring's personality. Clark Eliott at the Pusey Archive Center at Harvard was an invaluable resource as he led us through the Boring family papers. The Rockefeller Foundation provided Ogilvie with a grant to study their rich resources on our subject. The Director, Dr Darwin Stapleton, and most especially the archivist, Dr Thomas Rosenbaum, made the trip to the Archive Center a success. We would also like to thank the archivists at Smith, Mount Holyoke and Haverford colleges.

In Philadelphia, the American Philosophical Society and Free Public Library contributed as did the American Museum of Natural History in New York and the Field Museum of Natural History in Chicago. Librarians at Harvard, the University of Würzburg, the University of Maine at Orono, Johns Hopkins, and the Stazione Zoologica in Naples were also very helpful. Employees of the National Archives, Library of Congress, Franklin D. Roosevelt Library, Harry S. Truman Library, and Dwight D. Eisenhower library served us well.

We thank the staff of the Red Cross National Headquarters in Washington for supplying us with information concerning Boring's trip home in 1943 aboard the neutral ship Gripsholm after months of confinement in a Japanese internment camp for non-combatants. The US Army Military History Institute at Carlisle Barracks, Pennsylvania, gave us a history of the 79th Pennsylvania Regiment of Infantry in which Dr Boring's father served. Professor of Biology, Kraig Adler of Cornell, included Alice Boring in his work *Contributions to the History of Herpetology* as one of 152 scientists of the past who have advanced the study of amphibians and reptiles. He also kindly supplied photographs of Chinese amphibians. Mr Clayton Farraday, historian of the Friends' Central School of Philadelphia was generous with information on Boring's early schooling.

Some people who contributed are no longer with us. Christian Brother C. Edward Quinn, Professor of Biology at Manhattan College was willing to help anytime. With his death, the American Society of Zoologists lost its historian. Mr Dick Ritter, despite his advanced age and infirmity wrote clearly about his experience as history instructor at Yenching as well as his remembrances of Alice Boring. Janet Rhodes called him “a dear, sweet soul.” Dr Frederick Kao was one of Boring’s former students who became a well-known research physician in the United States and wrote of his recollections of Alice Boring. Dr Kao Ph.D., MD, formerly of the State University of New York Health Science Center in Brooklyn, died before he could see this biography to which he supplied so much important information.

Dr Frank Boring, a nephew of Alice Boring, referred us to Mrs Janet Smith Rhodes whose father had taught at Yenching. Janet turned out to be a ‘fairy godmother’, adding immensely to our knowledge of Yenching. Through her contacts we established a Yenching grapevine which seemed to grow exponentially. Dozens of Yenchingites produced an abundance of information and referrals. Miss Margaret Speer, Yenching’s Dean of Women, gave an oral history to her beloved Bryn Mawr College that included her remembrances of Alice Boring. Mrs Mildred Wiant, widow of Bliss Wiant, Yenching’s music director who played the organ at Dr Sun Yat Sen’s funeral ceremony was helpful as was Harold Shadick who taught history, philosophy, and literature at Yenching.

Significant contributions came from William Hung’s daughter Ruth Beasley; Rose and K.T. Chang; Dr Kenneth Chen, Department of East Asian Languages, UCLA; Dr Langdon Gilkey, author and Professor of Theology, University of Chicago; Mrs L. Carrington Goodrich; Kuo Chen Hsieh, President, Yenching Alumni Association; Katharine H.K. Hsu, MD, Professor Emeritus, Baylor University College of Medicine; Dorothy Wei (Cheng) King, Professor Emeritus, Department of Zoology, National Taiwan University; Chien Liu, MD, Director, University of Kansas Medical Center; Mrs Dorothy (Galt) MacArthur; the late Stephen Tsai, former Assistant Treasurer and Comptroller at Yenching; Mr Leslie Severinghaus, language instructor and soloist, Yenching, 1922–1927; Nai Hsuan (Chang) Shen, Professor of Biology, Georgian Court College; Florence (Giang) and Gene Szutu, MD; J.C. Tao, MD; Chi Hua Wang, Professor of Chemistry, University of Massachusetts; Yang Wang, MD, Department of Medicine, University of Minnesota; Mamie Kwoh Wang, MA, RN, and husband Professor Emeritus Shih Chien Wang, Ph.D., MD; Yan Tim Wong, MD; Laurence T. Wu, MD;

Mrs Nelson Wu (Mu Lien Hsueh); C.C. Tan, MD and Chih Chen (Lin); Brigadier General John L. Fugh, US Army; Mr Edward Rondthaler, III; Mrs Elizabeth R. Hays.

Our gratitude also goes to Tin Yuke Char, MD; Mrs Mary Musgrove; Professor Kao Laing Chow; Chao Chun Hsu; Susan Chan Egan, author, the National Women's History Project; Mrs Catherine G. Curran; Sung Nien Lu, MD; James Sailer; Mark K.H. Wang, MD; James McNamara, Bronx Historical Society; Dr Patricia Brown of Siena College; C. Martin Wilbur, author; Ti Huang; Peter Pang; and Tien Te Wu. The great staff of the Chelmsford Public Library, Oklahoma Baptist University which supplied money for the China trip, and the University of Oklahoma History of Science Collections have all been very supportive. Mrs Paul B. Bien of Georgia; Professor Kuo Ping Chou, University of Wisconsin; Professor Norman C. Li of Maryland; Utah Tsao, widower of the late Hazel A.C. Lin, MD of New Jersey; Shujiang Li of Vancouver, BC; and Jesuit fathers Francis Edwards of Rome and Paul Mech of Paris.

We want to especially thank those who were so kind and helpful when Ogilvie visited Beijing. First, Judge Robert Henry made it possible for Ogilvie to get a visa for a China trip. There are so many people in Beijing and in Xi An to whom we are indebted, we will undoubtedly accidentally omit someone. The help of Ye Dao Chun, now a librarian at Beijing University and an important member of the Yenching Alumnae Association, was vital to the success of the trip. Taking time off from her own work, Miss Ye shepherded Ogilvie around Beijing, including a visit to Boring's old house in the 'Manchu Prince's Garden'. The house had been torn down as unsuitable for the large number of families that it now had to accommodate, but the original gate that opened into the courtyard remained.

Shortly after Ogilvie arrived in Beijing, she was hosted by approximately twelve of Boring's former students and associates at a tea at what was formerly the home of President Leighton Stuart of Yenching. Yenching itself is now a part of Beijing University, but the distinction between Yenching and the rest of the university is evident. The group included not only former students, but others who had known her. Those present at this party were Wu Jie-Ping, Wang Xiu-Ying, Hou Ren Zhi, Jiang Lijin, Lin Chi Wu, Ye Dao Chun, Sun You Yun, Lu Niangao, and three former Boring laboratory helpers. Sun You Yun had done most of the arrangements for the tea, and later hosted Ogilvie at an excellent lunch at her house and provided the opportunity for her to meet Bin Xin, a famous writer, who was a member of Boring's 'Friday Lunch' group and who took her to an exhibit of Bin Xin's work. Lin Chang Shan escorted Ogilvie around the former

campus of Yenching University. It superficially resembled the building as it was when Lin entered in 1931, and with his help it was possible to reconstruct the earlier appearance. The biology building of Boring's time was currently being used for chemistry. The formerly spacious laboratories had been partitioned into smaller laboratories. The general biology laboratory where Lin had learned so much about the scientific method from Boring was half its original size. Chemical apparatus and supplies cluttered the area formerly occupied by preserved specimens and biological models. The former invertebrate zoology laboratory had been divided into four small laboratories. Boring's office remained much as it was when she called in hapless students to discuss their problems.

On another day, Ogilvie visited the Peking Union Medical College where a group of seven of her former students gathered in the still beautiful PUMC to share their recollections with Ogilvie. All seven individuals (Miss Wang Xiu Ying, Dr Zhou Hua Kang, Dr Feng Chuan Yi, Dr Fan Qi, Dr Tang Ji Xue, Dr Jin Yin Chang, and Dr Liu Shilian), now recognized authorities in their fields, unanimously agreed that Boring was a strict, no-nonsense, demanding teacher. After the interviews, Drs Liu Shilian and Feng Chuan Yi gave Ogilvie a tour of PUMC, including the auditorium where Sun Yat Sen's funeral took place.

We especially want to thank historian of science, Li Pei Shan of the Institute for the History of Natural Sciences, for her help.

In Xi An we would like to thank Liu Ming and Qi En Ho (President of the Yenching Alumnae Society) for all of their help. Liu Gian (Liu Ming's daughter) and another young woman, Li Tan, served as guides, taking Ogilvie to various archaeological and historical sites. We are indebted to the physicians whom Ogilvie met at the Fourth Military Medical University College, Dr Li Huan Jang, the head of the hospital who did not go to Yenching until 1950, after Boring had left; Dr Tung Kuong Huan, an endocrinologist at the Second Teaching Hospital; Dr Ma Shu Kun, a cardiologist at the first teaching hospital; Dr Wang Quan, Dr Ma's husband and an associate professor of ENT at the second affiliated hospital; and Dr You Guo Xing, Professor and Chairman of the Department of Neurology at the second teaching hospital; all provided information. They hosted an elegant banquet under the guise of a 'simple Chinese lunch'. Tan Li Zhu of the International Trade, Shanxi Subcouncil, Mr Yuan, and Tan Li Zhu took us to the Music Institute where we met Liu Chang Biao, Professor of the Xi An Conservatory of music and his wife Feng Zhong Hui, Professor of Statistics and Medical Demography. Others who supplied information were Ho Hsi Chen, Shan Yu Hsin, Tan Li Zhu. Drs Feng and Liu provided another excellent lunch. Ogilvie had intended visiting

Ding Han Bo, a herpetologist who works on the herpetofauna of Fujian province, but the logistics were impossible and she had to be content with his informative letters.

This page intentionally left blank

NOTE ON CHINESE NAMES

There are two major systems of transliteration for Chinese words, the Pinyin and Wade-Giles. When Alice Boring was in China, the Wade-Giles form was generally used. However, today, the Pinyin form is the dominant one. We have found consistency impossible, and not altogether desirable. Whenever possible, we have used the Pinyin form in this book. However, in many cases, Chinese students of Boring's day transliterated their own names using the Wade-Giles system. They published in English under these names, and we have used their names as they did. An example of a deliberate choice of the Wade-Giles over the Pinyin is in the name of the university where Boring taught. We have, as she did and as graduates of this university still do, used the Wade-Giles, 'Yenching' rather than the Pinyin, 'Yanjing'. On the other hand, we have used the Pinyin 'Beijing' rather than the Wade-Giles 'Peking'.

This page intentionally left blank

Introduction: The Green Grasshopper

During the crisp days of autumn, the lotus flower-filled pool mirrored brilliant orange, red, and yellow trees. The new Yenching University, situated on this former summer garden of the Manchu prince, Jui Wang, included artificial hills, waterways, islands, and flowing streams from the west. The natural beauty of the property was enhanced by Chinese fir, pine trees, and artificial grottoes. From the property's highest hills, a magnificent panorama of the surrounding countryside was visible. When the architectural decision was made regarding the design of the new university's buildings, the committee agreed that Chinese rather than western architecture would be adopted. The biology department was housed in one of the new brightly colored buildings replete with decorative dragons and a hyperbolically shaped tile roof.

In this building, Alice Middleton Boring, a middle-aged teacher with thick glasses and a bright green laboratory coat, provided her small class of Chinese premedical students at Yenching University with detailed laboratory instructions.¹ Quiet, attentive students focused their eyes and minds on the teacher, understanding that "Miss Boring" had the power to determine their acceptance or rejection by the prestigious Peking Union Medical College (PUMC).² Even though members of this advanced class were in awe of Boring's knowledge and power, they also realized that beneath a brusque facade dwelled a soft and giving person. This knowledge made them courageous enough to gently spoof their teacher's appearance. Surreptitiously they passed around the room a drawing made by one of the students. This piece of art showed the similarities of their teacher, with her thick glasses and bright green lab coat, to a grasshopper. The students fervently hoped that she would never hear of the nickname, but assumed that if she did they would be forgiven.³

Not all of her students had a reason to be so brave. In 1934, a premedical student who fell below the acceptable level was faced with a letter from premedical advisor Boring with a warning that he would probably “not be able to enter PUMC and therefore” should “begin to plan either to drop medicine and take up some other subject or else to enter some other medical school.” Although a student would be petrified to be faced with such a letter or, even more daunting, with a meeting with Boring herself, she actually was doing the frightened one a favor by recommending him or her to other less demanding medical schools.

When new students first arrived at Yenching, they were warned that Boring was “strict” and were prepared to find her an uncompromising, demanding, and humorless presence. It was not long, however, before hard-working students realized that Boring cared deeply about them and passionately wanted to see them succeed. A former student, the late Frederick Kao, remarked that she behaved toward her favored students as if they were the children she never had. He was convinced that this attitude was a major strength and enabled her “to devote her life to educating many instead of loving only a few.”⁴ Those students who relied on first impressions never got to see her softer side. When Lin Chi Wu, a sociology undergraduate who preferred athletics to school work, cast about for a course to satisfy a science requirement he briefly considered taking biology until he heard of Boring’s reputation. Those who worked hard and stayed with Boring, such as biologist Lin Chang Shan, recalled that although “we were afraid of her,” the training she provided in the scientific method made it possible for her students and her students’ students to occupy many of the most prestigious positions in science and the medical professions in China today.

When beginning students received a summons to “see Miss Boring,” they were universally unnerved. Her apparent sharp abruptness was a direct result of her sense of efficiency and responsibility as premedical advisor and teacher. By insisting on rigorous standards, she hoped to arm a young generation of Chinese students with resources to attack China’s social, medical, and scientific needs. Western science—in which she had unlimited faith—was to be the weapon. The lazy, the incompetent, and, occasionally, the students who “rubbed her the wrong way,” were weeded out. On the other hand, diligent, intelligent, and personable students were groomed, courted, and coddled for their mission.

Boring’s appearance in a Chinese classroom could not have been predicted from her early life. Exquisitely educated to take a leading role in the development of early twentieth-century biology, her mentors included Thomas Hunt Morgan and Edwin B. Conklin, who played key roles in the

development of cytogenetics, as well as Raymond Pearl, known for his development of statistical techniques. Through her relationship as a student and friend of the remarkable Nettie Maria Stevens who provided convincing evidence for the chromosomal theory of heredity, Boring learned that a woman could be a successful scientist. After receiving her Ph.D. degree from Bryn Mawr College, she rose to the rank of Associate Professor at a state university where she proceeded to publish numerous papers. From these beginnings it seemed likely that Boring would continue teaching, publishing, and working on research and make a secure place for herself as a scientist in the United States. However, at the age of thirty-four, she gave up this security to teach in an unstable China. She changed her research focus from “modern” prestigious cellular biology to more traditional taxonomy.

Why did Boring choose to leave the certainty of a steady position and create a career for herself that was even more atypical for a woman than the one she left? What motivated this radical change? Clearly the answers are not simple, but by exploring Boring’s fascinating life we may glimpse some of the reasons Boring made the choices that she did, and in so doing generalize from her experiences and unique solutions to challenges that other women scientists have faced.

Some clues to these questions may be found not in Boring’s professional training and experience, but in her personality and family background. Boring had never been a conventional person. Knowing her well, her family could not have been surprised when she decided to leave her secure position and accept a temporary post in an unstable China. Inconsistency was a consistent theme. Tension between decorum and impropriety, tradition and innovation surfaced throughout her life. Alice could be upset with a friend who violated protocol by being late to a party, yet could gleefully revel in a Mongolian camping trip where there were no boundaries of convention “as to what one may do or not do—we take shower baths in the morning by rolling naked in the long wet grass.”⁵ She could demand that her Chinese students learn proper western table manners but annoy her own family at home by refusing to use them herself. During conflicts with the “Great Powers,” Boring aligned herself with radical student political protests and helped students make and distribute posters protesting perceived injustices, explaining that their cause superseded academics. Yet when students decided to boycott classes to protest Japanese outrages, she indignantly declared that attention to studies was the best way to show patriotism.⁶

This dissonance between proper social protocol and unconventionality had its origin in Boring’s childhood. Alice was the third of four children

in an opinionated, strong-willed family. Bound together by ties of blood and behavioral convention, they sometimes overwhelmed each other. The two younger children, Alice, and the only boy, Edwin, were the family scholars. Although at times Alice and Edwin got along well, at other times she found him condescending and derisive. As professor of experimental psychology at Harvard, he was notorious for his exclusionary treatment of his women graduate students. It was much easier for Alice to deal with overbearing Edwin when she was thousands of miles away than when she lived down the street. For his part, Edwin was relieved to be spared the competition of an inflexible, competent sister. He complained that he had grown up in a matriarchy; “in my lifetime women dominated it and the men had inferior status.”⁷ Apparently from an early age, Alice and her female relatives did not fit into the conventional role of woman. Not a feminine woman according to early twentieth-century standards, she was outspoken, opinionated, adventurous, and idealistic.

The religious background of the family also contributed to the contradictions in Boring’s life. One side of the family was Moravian and the other, Quaker. In the Boring household, there was conflict, although neither of these denominations was especially dogmatic. The Borings were conventional in their own way and valued the forms and manners of their culture and, until 1918, when the Chinese opportunity arose, conventionality had the upper hand in Alice’s life. Her dissatisfaction with the status quo did not result from onerous rules. Instead, she had been chafing under the tyranny of the commonplace. Her social conscience and her philosophical and political idealism were no doubt inspired by her early education in a Quaker school. When she arrived in China she was definitely antimissionary, for she assumed that missionaries stressed the inconsequential to the exclusion of true Quaker verities. She declared that by concentrating on superficialities such as smoking and drinking and ignoring the social and political effects of poverty and colonialism they missed the important ethical values, namely a respect for the culture they professed to help.

Although idealism no doubt contributed to Boring’s desire to go to China, both an appetite for influence and a taste for adventure motivated her to leave a comfortable post at the University of Maine to go to a China dominated by the internecine strife of warlords. Her decision involved risks not encountered by her male colleagues. Although the number of jobs available for women biologists in the United States had increased by 1918, they remained rare and were usually confined to women’s colleges. Boring, who was an Associate Professor of Biology at the Maine Agricul-

tural station of the University of Maine, was an exception and would have been well advised by her colleagues to keep this position. Boring had managed to manipulate the state university system successfully, but such success was scarce, and many women biologists would have clutched at the security she was throwing away.

Perhaps Boring herself was surprised by her own audacity. Until 1918, her biological career had been traditional: she received A.B., M.A., and Ph.D. degrees in biology; studied in Europe; published the results of her research; belonged to scientific societies; and advanced up the academic ladder to the rank of associate professor. She clearly liked “teaching the farm boys why they kill potato bugs and their sisters why they put yeast in bread, and other similar useful information, and, incidentally, all unknown to them, trying to instill into their minds some ideas of evolution and heredity. . . .”⁸ She considered it “a great game trying to sugar-coat real science so that agricultural students will like it.”⁹ After eight years, however, the “great game” began to pale. Faced with the prospect of doing essentially the same thing for the rest of her life, she became restless and looked for other options. China provided an alternative which allowed Boring to teach and to feel that she was doing something useful for humanity. She also saw an opportunity to influence policy that she would never have had at home.

The Chinese setting did not harness Boring to the pursuit of power to the exclusion of the relational aspects of science. Science was not an activity to be practiced in isolation, but one to be enjoyed with colleagues, friends, and students. The community setting reflected a large infusion of human and social elements less evident in the American scientific community. Administrators, faculty, staff members, and students developed friendships through informal and formal meetings and parties. Boring truly believed that “objective” science was important *because* of its potential to help people. If she could browbeat, cajole, and threaten students, thereby forcing them to accumulate scientific knowledge, then they would be potentially competent to save their world from the “evils of superstition.” The power she wielded through teaching allowed her to influence the course of science and—as she would have seen it—history.

Thus the “Green Grasshopper,” a master teacher, travelled many miles, both literally and figuratively, from her academic origins in the eastern United States to teach in China. On September 12, 1918, the thirty-five-year-old zoologist departed from San Francisco Harbor on the China Mail Steamship Company’s newly purchased and refurbished *Nanking*.¹⁰ Spectacled, strong-chinned Boring was on her way to teach biology at the pre-medical college of Rockefeller Foundation-funded Peking Union Medical

College, an institution that had opened only the year previous to her sailing.¹¹ Her position was temporary, so she had no reason to assume that she was making an irrevocable career change. In spite of the experience of many women biologists, Boring with irrepressible confidence never doubted that when she returned to the United States she would be offered a teaching position.

Twelve time zones from Maine in a land where tomorrow is today, Boring might have expected to be lonely. Instead, she encountered other American biologists who were participants in the geographical expansion of western biology. When she met her new colleagues, she found that five had joined the PUMC premedical faculty in 1917 and were friendly, congenial, and shared some of her background experiences. PUMC biology department chairman Charles R. Packard had even studied with her former teacher, the well-known geneticist Thomas Hunt Morgan.¹²

Boring's rich life was filled with academic science; she published papers in both experimental biology and taxonomy, and prepared generations of Chinese students for successful careers in medicine and biology. However, it is clear that these matters, however important, were generously mixed with concerns about her relationships with family, friends, students, and colleagues—especially Yenching University president, Leighton Stuart.

Throughout her early life in both the United States and China, romantic attachments eluded Boring, largely because she was preoccupied with teaching, politics, and research. Men found her desire to control situations and relationships distinctly unfeminine, although they accepted her as a respected colleague. One man, however, seemed to be unbothered by her demeanor, although the nature of their relationship is unclear. From their first meeting, Boring worshiped Leighton Stuart, the handsome president of Yenching University and later United States Ambassador to China. She supported him unquestioningly, and defended him against all detractors. Brother Edwin teased her about her infatuation with Stuart, and students reported seeing Stuart and Boring strolling across a bridge on the Yenching campus holding hands. Her friendship with English teacher Grace Boynton was seriously endangered after a quarrel over Stuart.

In some sense, these personal factors might be considered extraneous to science; clearly Boring thought they were. However, Boring's life and work can be used to support both sides of the current feminist debates about the existence of a special feminine science characterized by family concerns and relationships. While Boring herself would have